

Remarks

The Final Office Action dated October 22, 2009 lists the following grounds of rejection: claims 1-17 stand rejected under 35 U.S.C. § 103(a) over Applicant's admitted prior art ("APA", specification, page 1) in view of Kawaguchi (U.S. Patent No. 5,793,189). Applicant traverses all of the rejections and, unless explicitly stated by the Applicant, does not acquiesce to any objection, rejection or averment made in the Office Action.

Applicant respectfully traverses the rejection under 35 U.S.C. § 103(a) for failing to show correspondence to each limitation. The Examiner bases the rejection upon an improper interpretation of the teachings of the '189 reference. In pertinent part, the Examiner's rejection relies upon an assertion that the voltage provided at HVI is identical to V_k because the HVI is the charger voltage minus the voltage drop of diode 16 and V_k is the charger voltage minus the voltage drop of diode 18 (*see, e.g.*, Figure 1). This assertion, however, is premised upon the erroneous conclusion that the voltage at each of the corresponding diodes is the same. The '189 reference clearly teaches that this is not the case. Circuit 17 is a voltage regulating circuit that changes the voltage from a relatively high voltage to a relatively low voltage. This is supported by what appears to be the depiction of a Zener diode in the relevant figure (*i.e.*, as noted by the Zener diode symbol of circuit 17). The '189 reference explains this at Col. 6:51-56: "(t)he charge interface (I/F) circuit 11 includes a simplified constant voltage circuit 17...The simplified constant voltage circuit 17 outputs a DC voltage V_k required for starting the DC-DC converter 6." For further details on the function of a Zener diode and its use as a voltage regulator, reference can be made to U.S. Patent No. 5,336,924, issued on August 9, 1994. It should therefore be clear that the Examiner's conclusion regarding the voltages HVI and V_k is erroneous.

Moreover, the circuit of the '189 reference is designed such that anytime a sufficient voltage is present on HVI, the DC/DC converter is also on (*e.g.*, ST is active high). Thus, there is no situation in which the logic circuit of the '189 reference receives the HVI input voltage to power the logic circuitry when the DC/DC converter is switched off (*e.g.*, if the HVI input voltage is present, the DC/DC

converter is necessarily switched on). Accordingly, the rejection is improper and should be withdrawn.

The rejection is also improper because the Examiner has not considered the claim limitations as a whole. In particular, the Examiner fails to address claimed limitations directed to the on/off signal and the responsiveness to an idle state. The Examiner hypothesizes that the DC/DC converter may be on or off when various circuit elements are also on or off; however, the Examiner stops short of presenting evidence of how the DC/DC converter of the '189 is responsive to an idle state. Applicant submits that the '189 reference teaches that the DC/DC converter is turned on or off in response to a battery voltage level for the express purpose of protecting against over-discharge of the battery. Thus, the only aspect that the DC/DC converter is taught to respond to is a battery voltage level. Applicant submits that it is not possible to know whether the DC/DC converter of the '189 reference is on or off when looking at the state of the circuits identified by the Examiner because the control aspect of the converter is the battery charge level. The skilled artisan would readily understand that the DC/DC converter is in no reasonable way responsive to any idle state. Instead, the DC/DC converter is expressly and only responsive to a battery charge level. This is easily confirmed by a brief review of the relevant figures and associated description. Accordingly, the Examiner's rejection fails to show correspondence to each element and should be withdrawn.

In view of the above, the cited combination of references does not correspond to the claimed invention. Accordingly, the § 103(a) rejection is improper and Applicant requests that it be withdrawn.

In view of the remarks above, Applicant believes that each of the rejections has been overcome and the application is in condition for allowance. Should there be any remaining issues that could be readily addressed over the telephone, the Examiner is asked to contact the agent overseeing the application file, Juergen Krause-Polstorff, of NXP Corporation at (408) 474-9062 (or the undersigned).

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